CHAPTER 5

ASSOCIATED MAINTENANCE MANAGEMENT FUNCTIONS

This chapter contains equally important functions of maintenance management not specifically addressed in other parts of this guide. These functions are vital to a proactive maintenance program and should be performed and managed accordingly. The subject matter is presented in short narrative and question format and is intended for use by commanders and maintenance managers at company, battalion, and DMMC/DISCOMlevels.

5-1. **Customer relations**

a. Achieving the best results in maintenance operations requires a high degree of coordination and cooperation between maintenance support units and supported units. They must share the responsibility of identifying weaknesses and problems in maintenance operations and work jointly to resolve them. To communicate effectively, mutual understanding and trust must be developed between units. To foster this relationship, support unit commanders and managers should:

(1) know:

(a) The key people in the supported units.

(b) The mission of the supported units.

(c) The training plan of the units.

(d) How the units manage their unit maintenance operations

(e) How to identifyweaknesses in the supported unit's maintenance operations, MOS skills, and training.

(f) The type and condition of the supported equipment.

(g) The support required or desired versus the capability and capacity available to meet the requirement.

(2) Have frequent contact with key people in the supported units.

(3) Respond to actual or perceived problems and complaints about support provided and resolve the issues without damaging communication channels.

(4) Tactfully discuss problems and weaknesses with the supported unit commanders.

b. Use the following questions to help you evaluate your customer relations:

(1) What are the names of the battalion and company commanders, the battalion maintenance officer, and maintenance NCOs?

(2) Do you regularly discuss mutual issues with your supported units?
(3) What are the supported units' perceived problems with their maintenance operations and with the support they receive?
(4) What is the attitude of the supported units towards the Supporting unit?
(5)Are commanders actively working towards elimination of negative attitudes?
(6) Are there complaints or rumors that need resolution?
(7) Has there been open and detailed discussion about complaints and rumors?
(8) Are the problems of supported units treated as privileged information?
(9) Is there mutual trust between units?
(10) What equipment on work order is critical to the supported unit's training programs?
(11) Has the external SOP been revised to eliminate any unnecessary administrative burden on the supported units?

5-2. **Technical assistance.**

a. The responsibility for technical assistance is specified in AR 750-1, chapter 4, section III. Unsolicited technical assistance should be offered to a supported unit when weaknesses are identified in performance of diagnostics or maintenance operations. Indicators of weaknesses can be monitored when equipment is submitted for repair. Some indicators are:

(1) A consistently high number of unit level deficiencies indicating poor unit level maintenance. This may be caused by
(a) Insufficient or poor MOS skills.
(b) Failure to follow proper technical procedures.
(c)Unit workload exceeding capacity.
(d)Poor supervision or maintenance discipline.
(e) Perception that the support unit is required to perform unit level repairs on a regular basis.
(2) Equipment work ordered for repair, when tested, indicating evidence of failure. This is reported as action code P. Code P items ma result from:
(b) Inadequate or wrong test equipment.
(c) Failure to follow correct technical procedures
(d) Improper test procedures in TMs.
(e) Inadequate MOS skills.
(f) Complete technical inspections not conducted prior to evacuation.
(3) Excessive time lapse before NMC equipment is evacuated to higher level maintenance. This may be caused by:
(a) Unit level workload exceeding capacity.
(b) Inadequate operational control procedures or a lack of supervision.

(c) Equipment continued in use after it is NMC.
b. Liaison visits to supported units can confirm weaknesses in maintenance performance and identify the need for technical assistance. It is not our intent to imply that support units inspect supported units. However, when requested, evaluation of unit level operations may include a thorough review of all unit maintenance operations. To assist you in observing a supported unit's operations and analyzing what you have observed, use the following questions to focus on the causes of problems:
(1) Does the unit have controlled on-the-job training for maintenance skills?
(2) Do operators and mechanics follow approved technical procedures when performing maintenance?
(3) Are scheduled maintenance periods actively supervised?
(4) Is test equipment used?
(5) Does the unit trouble shoot by component replacement?
(6) Has the unit workload exceeded its capacity?
(7) Does the unit have all required tools and TMDE?
(8) Are current publications on hand and in the work area?
(9) Is NMC equipment continued in use?
(10) Is equipment checked by a qualified NCO to ensure equipment has been correctly prepared for evacuation?
(11) Has the unit identified technical training requirements where the support unit can provide training?
(12) Is the support unit conducting courtesy inspections when requested'?
(13) Are MST and unit level mechanics working together to resolve problems?
(14) How many items are evacuated for repair that are diagnosed as no-evidence-of-failure?
(15) What percentage of items is evacuated for repair with unit level deficiencies?
(16) Are faults properly identified on work requests?
(17) Is the same item with the same fault being repeatedly returned for repair?
(18) Does the support unit provide technical assistance to the user on preparing QDRs and EIRs?
(19) Do the support units have the capability to provide technical assistance required or do they assist the units in obtaining assistance from higher levels of maintenance or the MAIT or AMC LAO?

5-3. **Shop supply.**
a. An effective shop supply operation is essential to responsive maintenance support. Automated procedures in SAMS have reduced the burden of manual procedures. However, automation has not alleviated the need for motivated shop supply clerks. Commanders and managers can ensure satisfying repair parts support by-
(1) Periodically reviewing shop supply operations for compliance with DA Pam 710-2-2

(2) Requiring performance to command standards.
(3) Ensuring shop supply clerks are properly trained and capable of performing their duties.
(4) Verifying that available supply assistance is being used to the maximum advantage.
(5) Maintaining vigorous follow upon all maintenance supply actions to ensure supply responsiveness.
(6) Promoting alternative sources of supply like-
(a) Cross-leveling.
(b) Controlled substitution.
(c) Cannibalization.
(d) Using next higher assembly
(e) Fabrication.
(f) Local purchase.
b. To assist you in focusing on problems start with the following questions:
(1) Is the NMCS time too long?
(2) How can NMCS be reduced?
(3) Are there delays in requisitioning parts?
(4) What are the rejection and cancellation rates for requisitions?
(5) How many requisitions are for the wrong parts?
(6) What alternative supply sources are used?
(7) How many shop stock and bench stock lines are at zero balance?
(8) What Items are excess in shop stock and bench stock?
(g) Are excesses being turned in a timely manner?
(10) Is location accuracy within standards?
(11) Have supply problems been reported to the battalion staff and DMMC?
(12) Do shop supply clerks follow up on aging requests?
(13) What is the battalion staff and the DMMC doing to provide assistance m solving problems?

5-4. **Publications.**

a. The management and use of publications are crucial to an effective maintenance operation. Publications are the primary source of
(1) Technical information and procedures.
(2) Training material.
(3) Operational policy and procedures.
b. The key to getting the maximum benefit from publications is to have-
(1) A sufficient updated quantity of the right publications on hand.
(2) Publications located m the work area.
(3) Maintenance personnel follow procedures in technical publications when performing diagnostic and repair functions.
c. To focus on publications problems start with the following questions:

(1) Is there a capable NCO managing publications?
(2) Is DA Pam 25-30 reviewed to identify current requirements?
(3) Isa current DA Form 12-series on file at the U.S. Army Publications and Distribution Center-Baltimore?
(4) Have all requirements been requisitioned and placed on pinpoint distribution?
(5) If receipt of publications has not been timely, what action is being taken to tell Baltimore or St. Louis distribution center?
(6) Are changes posted on a timely basis?
(7) Is there a current file of messages and letters on safety-of-inuse and technical changes?
(8) Are you submitting recommended changes to publications (DA Form 2028)?
(9) Do mechanics understand how to use publications?
(10) Do mechanics use technical manuals when performing maintenance?
(11) Can mechanics read and understand technical manuals and other publications they use?
(12) Do mechanics know whereto find what special tools are required for a job?
d. You can get a list of all technical publications for the you support by sending a request with your level of maintenance and a list of equipment by LIN and if possible the NSN, to:
Commander
USAMC - Materiel Readiness Support Activity
ATTN: AMXMD-MP
Lexington, KY 40511-51O1

5-5. **Tools and TMDE**
a. Without the proper tools and TMDE, quality maintenance performance is not possible. Tools come in two categories, general purpose and special. Both tools and TMDE are authorized MTOEs and TMs. Commanders and managers must be aware of the requirements for special tools and TMDE as a result of new equipment and changes in mission. They must also do the following:
(1) Verify tools and TMDE on hand against MTOE and TM authorizations.
(2) Compare sets, kits, and outfits (SKO) with supply catalogs to ensure completeness.
(3) Verify requirements for special tools and TMDE from lists of equipment to be supported, new equipment fielding plans, repair parts and special tools lists, and technical manuals.
(4) Ensure special tools and TMDE are calibrated.
b. To help you focus on problems start with these questions:
(1) Do you know what tools and TMDE are required for the equipment you support and will support?

(2) Are the required tools and TMDE on hand or on order?
(3) For those tools and TMDE on hand, do you know where they are and who is hand receipted for them?
(4) Are procedures in DA Pam 710-5 followed for control and inventory of tools and TMDE?
(5) Are there sufficient special tools and TMDE on hand to multiple locations simultaneously?
(6) Are the tools serviceable?
(7) Who is assigned responsibility for the calibration control program?
(8) Is the technical bulletin for calibration requirements current and on hand?
(9) Are calibration data cards being maintained?
(10) Are special tools and TMDE being calibrated when required?
(11) Are soldiers using special tools and TMDE that are out tolerance and require calibration?
(12) Is training conducted on the use of special tools and TMDE?
(13) Are mechanics' skills verified to ensure they know how to use tools and TMDE?

5-6. **Personnel Management**

a. Developing and sustaining required technical skills and maintaining high direct labor utilization are the most difficult aspects of maintenance capability and capacity management. Without forethought about personnel turbulence caused by rotational requirements and active training programs, adverse impact on maintenance capability and capacity can occur. Commanders and maintenance managers must monitor maintenance skill capabilities and the impact of personnel turbulence to ensure personnel requirements are properly support The stated current levels of skill performance of maintenance personnel may be determined using a combination of evaluations such as:
(1) Unit ARTEP results
(2) Individual SQT results.
(3) Observation of on the job performance by first and second line supervisors.
(4) Unit workload turnover trends.
(5) Workload rejection rates

b. The skill levels in different MOSS within a unit should be compared to the skills required to repair equipment supported or projected for future of support. This can be done by constructing a matrix comparing the different equipment models and their MOS skill requirements with on hand skill capabilities. See Figure 5-1. With this information you should determine your maintenance cross-training requirements.

c. The following questions will get you started:
(1) What are the MOS and skill level requirements for the equipment supported?
(2) Are the required MOSS and skill level soldiers on hand?

(3) What is the MOS and skill level shortfall by type of equipment and shop section?
(4) What are the projected losses and gains for the next 90 days?
(5) How will the projected shortfall affect capacity and your ability to support?
(6) Are soldiers with critical MOSS assigned to manager non-maintenance positions?
(7) How can skills not used on a regular basis be sustained?
(8) What are the internal and external MOS training requirements?
(9) Is there an internal cross-training program?
(10) Is on-the-job training controlled to ensure required skills are trained and proficiency is achieved?
(11) Have external training requirements been forwarded through the chain of command? Are soldiers selected for BNCOC and ANCOC released to attend the training?
(12) Is direct labor utilization within acceptable standards? (50 percent for soldiers and 85 percent for civilians)
(13) Do officers and NCOS plan their soldiers' time to maximize the time in the shop?
(14) Are diversions from the shops absorbed by sections where capacity can absorb the requirement without adversely affecting the mission?
(15) Do section chiefs and platoon sergeants plan for soldier time off for personal affairs and rest?
(16) Are soldiers working weekends and overtime to makeup for poor direct labor utilization during the week?

5-7. **Recognition and awards.**

a. Performance can be influenced in many ways. The commander and must constantly ensure that enthusiasm, initiative, and superior performance are recognized. Recognition of superior performance can be accomplished using a wide range of options from "thank you" to a formal award.

b. In addition to informal recognition on a personal basis, commanders and managers should promote an active awards program based on specific criteria. Start your analysis by asking the following questions:
(1) Is there an awards program that recognizes individuals, sections, and units?
(2) Are supervisors supporting the program by identifying deserving soldiers?
(3) How many mechanic and driver badges have been awarded?
(4) Is there a general perception that all soldiers have the opportunity to compete for awards and promotions?

c. In addition to the above, other actions can serve to support an active program. Determine if-
(1) Awards and promotions are timely.
(2) The leave and pass policy is fair and reasonable?

(3) Weekend duty in garrison is kept to a minimum.
(4) Training opportunities are provided to deserving soldiers to assist in their career development.

5-8. **Safety.**

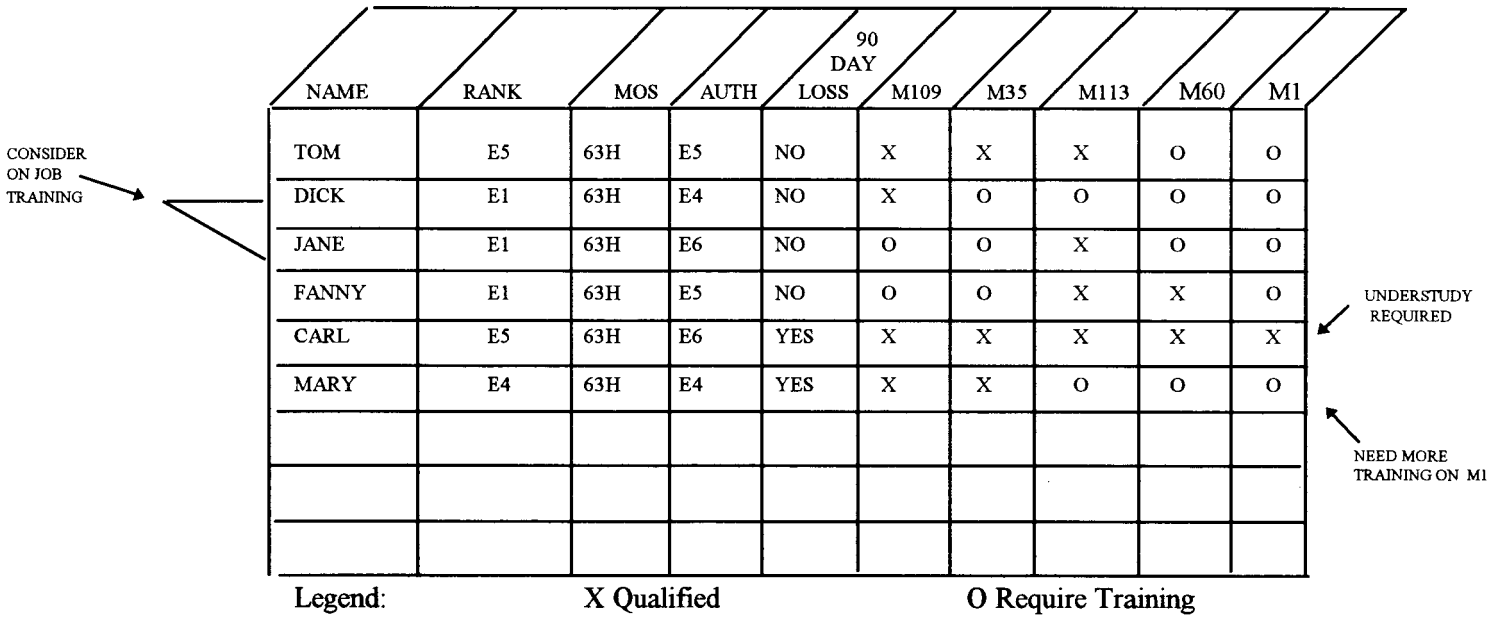
a. The need for safety can never be overstated. Commanders and maintenance managers must constantly preach safe practices to ensure everything possible is done to protect soldiers from accidents. The U.S. Army Safety Program provides volumes of material dealing with all aspects of safety. The basic requirements for a unit safety program are outlined in AR 385-10 and DA Pam 385-1. Our purpose is to focus on safety as a part of maintenance management. The following questions can get you started:

(1) Are performance standards too high causing soldiers to work in an unsafe manner in attempting to meet the standards?
(2) Are safety indicators checked during initial and final inspections?
(3) Are possible hidden deficiencies checked when repairs are in progress to ensure an unsafe vehicle is not placed on the road?
(4) Are critical safety points double checked?
(5) Are results of accident reports reviewed to determine if maintenance practices and procedures contributed to the accident?
(6) Are safetyof-use reports read by all users and maintainers of the applicable equipment?
(7) Are safety-of-use messages kept on file?
(8) Is each shop accident reviewed by all-commanders and maintenance managers?
(9) Are unsafe unit maintenance practices discussed with support unit commanders?

b. The list could go on. The point made here is that commanders and maintenance managers must look at the information generated from the use of equipment and the processes of maintaining the equipment and apply that information to preventing accidents.

c. The list will stop here for now. The authors invite you to make your own list of questions for those maintenance operations you find important.

Figure 5-1. **Personnel Skill Matrix**



NAME	RANK	MOS	AUTH	90 DAY LOSS	M109	M35	M113	M60	M1
TOM	E5	63H	E5	NO	X	X	X	O	O
DICK	E1	63H	E4	NO	X	O	O	O	O
JANE	E1	63H	E6	NO	O	O	X	O	O
FANNY	E1	63H	E5	NO	O	O	X	X	O
CARL	E5	63H	E6	YES	X	X	X	X	X
MARY	E4	63H	E4	YES	X	X	O	O	O

Legend: **X Qualified** **O Require Training**